

WHAT IS CLAIMED IS:

1           1. A method for converting text to concatenated voice by  
2 utilizing a digital voice library and a set of playback rules, the digital voice library  
3 including a plurality of voice recordings with each recording having a starting sonic  
4 feature and an ending sonic feature, the method including receiving text data,  
5 converting the text data into a sequence of voice recordings in accordance with the  
6 digital voice library and the set of playback rules, the method further comprising:

7           generating voice data based on the sequence of voice recordings by  
8 concatenating adjacent recordings in the sequence of voice recordings, wherein  
9 concatenating a first recording and a second recording adjacent to the first recording  
10 includes manipulating the ending sonic feature of the first recording to determine a  
11 first recording switch point, manipulating the starting sonic feature of the second  
12 recording to determine a second recording switch point, and synchronizing the first  
13 recording switch point and the second recording switch point.

1           2. The method of claim 1 wherein the starting and ending sonic  
2 features of the voice recordings are classified into a number of different categories.

1           3. The method of claim 2 wherein one of the categories is a  
2 noise.

1           4. The method of claim 2 wherein one of the categories is an  
2 impulse.

1           5. The method of claim 2 wherein one of the categories is a tone.

1           6. The method of claim 2 wherein the first recording switch  
2 point is selected based on the classification of the ending sonic feature of the first  
3 recording.

1           7. The method of claim 6 wherein the second recording switch  
2 point is selected based on the classification of the starting sonic feature of the  
3 second recording.

1           8. The method of claim 1 wherein the starting and ending sonic  
2 features of the voice recordings are classified into a number of different categories  
3 including a noise, an impulse, and a tone.

1           9. The method of claim 8 wherein the ending sonic feature of the  
2 first recording is an impulse and the starting sonic feature of the second recording  
3 is an impulse, and wherein synchronizing the first recording switch point and the  
4 second recording switch point further comprises:

5                 synchronizing the impulses, and switching to and playing back the  
6 impulse and remainder of the second recording.

1           10. The method of claim 8 wherein the ending sonic feature of the  
2 first recording is a tone and the starting sonic feature of the second recording is a  
3 tone, and wherein synchronizing the first recording switch point and the second  
4 recording switch point further comprises:

5                 synchronizing the tones, and switching on peaks of the tones.

1           11. The method of claim 10 wherein the recordings overlap, and  
2 wherein synchronizing during the overlap includes multiplexing.

1           12. The method of claim 8 wherein the ending sonic feature of the  
2 first recording is a noise and the starting sonic feature of the second recording is a  
3 noise, and wherein synchronizing the first recording switch point and the second  
4 recording switch point further comprises:

5                 switching anywhere within the noise such that not more than fifty  
6 percent of duration of either noises is cut.

1           13. The method of claim 8 wherein the ending sonic feature of the  
2 first recording is a tone and the starting sonic feature of the second recording is an

3        impulse, and wherein synchronizing the first recording switch point and the second  
4        recording switch point further comprises:

5                switching on a peak of the tone and on an impulse of the impulse.

1                14.        The method of claim 13 wherein the tone and the impulse  
2        overlap, and wherein synchronizing during the overlap includes multiplexing.

1                15.        The method of claim 8 wherein the ending sonic feature of the  
2        first recording is a noise and the starting sonic feature of the second recording is an  
3        impulse, and wherein synchronizing the first recording switch point and the second  
4        recording switch point further comprises:

5                switching anywhere within the noise such that not more than fifty  
6        percent of the noise is cut, and switching on an impulse of the impulse.

1                16.        The method of claim 8 wherein the ending sonic feature of the  
2        first recording is a noise and the starting sonic feature of the second recording is an  
3        tone, and wherein synchronizing the first recording switch point and the second  
4        recording switch point further comprises:

5                switching anywhere within the noise such that not more than fifty  
6        percent of the noise is cut, and switching on a peak of the tone.

1                17.        The method of claim 8 wherein the ending sonic feature of the  
2        first recording is an impulse and the starting sonic feature of the second recording  
3        is a tone, and wherein synchronizing the first recording switch point and the second  
4        recording switch point further comprises:

5                switching at a peak of the tone and an end of the impulse.

1                18.        The method of claim 17 wherein the impulse and the tone  
2        overlap, and wherein synchronizing during the overlap includes multiplexing.

1                19.        The method of claim 8 wherein the ending sonic feature of the  
2        first recording is an impulse and the starting sonic feature of the second recording

3       is a noise, and wherein synchronizing the first recording switch point and the second  
4       recording switch point further comprises:

5               switching anywhere within the noise such that not more than fifty  
6       percent of duration of the noise is cut, and switching an end of the impulse.

1               20.      The method of claim 8 wherein the ending sonic feature of the  
2       first recording is a tone and the starting sonic feature of the second recording is a  
3       noise, and wherein synchronizing the first recording switch point and the second  
4       recording switch point further comprises:

5               switching anywhere within the noise such that not more than fifty  
6       percent of duration of the noise is cut, and switching at a peak of the tone.

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